Inventing a Wonder Drug

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Nowadays people by and large rely on over-the-counter drugs for certain medical conditions rather than going to a doctor or seeking help from natural cures. Reeling from joint aches? Get a pain killer from the nearest pharmacy. Cut your finger while cooking? Apply antiseptic ointment. But did you know that chewing a piece of ginger or using essential ginger oil in your bath can help aching muscles and joints? Have you tried sprinkling a bit of turmeric or dabbing a paste of marigold on your finger cut? The plants that we have around us can work as a wonderful source of medicine. In fact, our country houses rich floral diversity, we have different ethnic communities and traditional medicinal practitioners like *vaidyas* and *kabirazs* who use plants as a source of medicine.



To find out this amusing tradition of using ethnomedicinal plants as a natural healer, a nature loving Bangladeshi scientist along with his team started the mission of revealing the secrets of nature back in 2009. If you want to know nature, you must be in it, he thinks. Therefore he and his team started spending ample time with different ethnic and nomadic groups of the country, who live in the hilly and flat terrains, to bring out the beneficial effects of different ethnomedicinal plants in a scientific way.

After their field work, the team started the documentation of ethno medicinal information on plants and consequently many important research publications have emerged in many international journals. Not only ethno medicinal plants, they have also done an extensive research on famine food plants and functional food plants. But what is particularly worth mentioning is their recent discovery- a wonder drug which has the potential to cure H5N1 virus (bird flu) and also has properties which can create magic in the case of pancreatic cancer.

Meet our magician who has turned a natural resource to a useful medicine from scratch in his lab - Prof Dr Mohammed Rahmatullah, dean of the Faculty of Life Sciences at the University of Development Alternative (UODA) and his team consisting of Prof Dr Rownak Jahan, Wahid Mozammel Haq, FM Saiful Azam, Sayeda Seraj and Shahnaz Rahman. The research team also includes four young members- Md. Tabibul Islam, Prativa Rani Das, Md. Ezazul Haque, and Erena Islam.

"Plants have served as the basis of traditional medicine for thousands of years," explains Dr Rahmatullah. "Plants supply many active ingredients which are used in medicines; one of them is secondary metabolites." Secondary metabolites are believed to be the waste products of plants. These products are not essential to the plant's survival but it helps the plants to stay protected from dangerous elements. Not only do the secondary metabolites have functions for the plants, they have proven to be pretty beneficial for us, too.

"While working on secondary metabolites, we decided to run an elaborative research on seeds, as seeds are an important part of the plants rich in secondary metabolites. One of the principal seeds that we get in Bangladesh is paddy, so we thought why not start our research with paddy husk?" Dr Rahmatullah explains his research. A fact about paddy husk is that humans can't digest it. So the scientist and his team decided to take out the crude extract from the paddy husk and then use it in their drug.

They decided to conduct their clinical trial on poultry and fish. "In our trial we found out that the